

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-15 (Canceled).

Claim 16 (New): A method for separation according to size of particles with different sizes, immersed in a liquid, the method comprising:

introducing a radiation in a waveguide, coupled to a second guide in a coupling area, the radiation entraining all particles towards the coupling area; and
separating the particles as they pass into the coupling area.

Claim 17 (New): A method according to claim 16, wherein a distance between the two guides in the coupling area is less than 5 μm .

Claim 18 (New): A method according to claim 16, wherein a length of the coupling area is between 10 μm and 50 μm .

Claim 19 (New): A method according to claim 16, wherein the particles are cells or macromolecules or microballs.

Claim 20 (New): A method according to claim 16, wherein the introduced radiation is in a spectral range between near ultraviolet and infrared.

Claim 21 (New): A method according to claim 16, wherein the particles are microballs, and microball marked cells, and the radiation is in the infrared range.

Claim 22 (New): A method according to claim 16, wherein a diameter of the particles is between 100 nm and 500 nm, or between 600 nm and 1.5 μm , or between 1 μm and 100 μm .

Claim 23 (New): A method according to claim 16, wherein the liquid in which the particles are immersed is water or a cell suspension medium.

Claim 24 (New): A method according to claim 16, wherein some of the particles are metallic or marked by metallic particles.

Claim 25 (New): A method according to claim 24, wherein some of the particles are gold particles or marked by gold particles.

Claim 26 (New): A method according to claim 16, wherein the radiation introduced in the waveguide is polarized in transverse magnetic mode.

Claim 27 (New): A particle separation device, comprising:
two optical guides coupled by a coupling area with a length between 10 μm and 50 μm , a distance between the guides being between 500 nm and 5 μm .

Claim 28 (New): A device according to claim 27, further comprising a radiation source with a wavelength of between 300 nm and 1.2 μm , or 1 μm and 1.2 μm , in one of the two optical guides.

Claim 29 (New): A device according to claim 27, further comprising a radiation source polarized in transverse magnetic mode in one of the two optical guides.

Claim 30 (New): A device according to claim 27, further comprising means for displaying separation of particles.